



OWNERS MANUAL

MEZZOTM
FOLDING BIKES



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INTRODUCTION:

Congratulations, and thank you for choosing Mezzo.

Your Mezzo has been designed and produced to make the most of the fantastic benefits that our advanced and unique design offers, and to provide you with the best possible performance for many years to come. To get the best from your new bike, and for your own safety, it is very important that you fully understand the operation of the Mezzo folding bike before riding.

This owner's manual assumes a working knowledge of bicycles and an understanding that the regular inspections and maintenance which are outlined are essential to ensure the safe performance and longevity of your bike. If you are not experienced in owning and riding a bicycle, always consult your Mezzo dealer about important issues. This is especially important with any folding bike.

Please read, understand and digest all the sections that apply to your bike before riding your bike for the first time.

The Mezzo has passed the arduous DIN testing standard. This means Mezzo has been tested for its intended use of general road riding. Do not ride your Mezzo on rough off-road terrain. Incorrect use can lead to serious injury.

DISCLAIMER:

By opening the packaging; or by assembling the bike; or by using the bike (or by allowing it to be unpacked, assembled or used) you are agreeing to: (a) accept and be bound by the terms set out below; and (b) require anyone using the bike to be bound by such terms. If you are unwilling to be bound by these terms you may return the bike unused for a full refund.

Terms:

You agree that you will:

- (a) read the manual carefully and follow its instructions and guidance before assembling or using the bike;
- (b) view the demonstration of the correct folding / unfolding procedures on the DVD provided (or view this on our website or ask a dealer for a personal demonstration);
- (c) carry out the pre-ride checks, described in the manual, on each occasion before riding the bike;
- (d) always make sure any other users of the bike carefully read the manual, view the demonstration, follow the instructions and guidance given, and carry out the pre-ride checks before they assemble, use or ride the bike.
- (e) assume all the risks resulting from or arising out of incorrect assembly or use of the bike or failure to carry out properly the pre-ride checks;
- (f) waive any claims you may have against ATB Sales Limited resulting from the incorrect assembly or use of the bike or your failure to carry out properly the pre-ride checks;
- (g) indemnify ATB Sales Limited and hold it harmless against all claims by other users of the bike, whom, through a failure on your part, have not read the manual carefully and viewed the demonstrations, and / or whom you have permitted to incorrectly assemble or use the bike, and / or whom you have permitted to ride the bike without carrying out properly the pre-ride checks.
- (h) And you also agree that ATB Sales Limited will not be liable for any defect in the bike arising from fair wear or tear, wilful damage, negligence, abnormal use, a failure to follow the guidance given, misuse or alteration or repair (other than a repair carried out by an authorised dealer);

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Please Note:

- (1) A copy of the manual with instructions for folding and unfolding the bike together with details of necessary pre-ride checks and other guidance for maintenance is contained within the packaging
- (2) A DVD demonstrating the correct ways to fold and unfold the bike is also contained in the packaging.
- (3) A demonstration of the correct way to fold and unfold the bike is also available for viewing on our website; www.mezzobikes.com
- (4) Our authorised dealers will also demonstrate the folding and unfolding procedures to you, a list of our authorised dealers is on our website.

The bike will be safe if it is assembled and used in accordance with the instructions and guidance. However, incorrect assembly, incorrect unfolding or incorrect use may result in serious injury or death.

Your statutory rights are not affected by these Terms and they do not exclude or limit ATB Sales Limited's liability for personal injury or death caused by its negligence.

GETTING TO KNOW YOUR MEZZO:

BEFORE RIDING YOUR MEZZO:

The Mezzo is folded and unfolded in a series of individual steps. It is important that these steps are made in the correct sequence, to ensure the most efficient and safe folding and un-folding. Please take some time to refer to the Mezzo Folding Bike Folding Sequences on pages 13-19.

If you received your Mezzo in its shipping box it is important to undertake a comprehensive check of your bike to satisfy yourself that the bike is in a safe condition to ride. Please refer carefully to all the sections below.

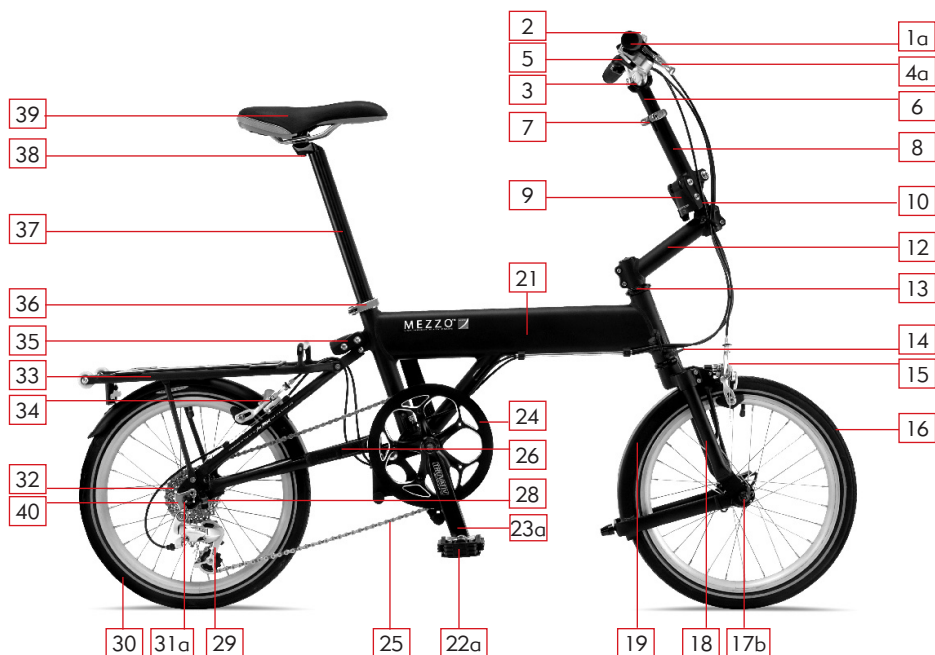
Remove all extraneous packaging and protective material from the bike. You will need to unfold the bike and perhaps make some adjustments to accommodate your requirements, please refer to areas of adjustment starting on Page 9.

MAXIMUM WEIGHT LIMIT:

The maximum combined weight of rider and luggage should not exceed 110kg.



GLOSSARY OF PARTS: STANDING ON THE RIGHT-HAND SIDE OF THE BIKE



Number	Component Description
1a	Right-Hand Handlebar Grip
2	Handlebars
3	Upper Stem Clamp
4a	Right-Hand Brake Lever
5	Gear Shifter
6	Upper Handlebar Stem
7	Upper Handlebar Stem Clamp
8	Upper Hinge Parts
9	Front Self-locking Catch
10	Lower Hinge Parts
12	Lower Stem
13	Headset
14	Lockstop
15	Front Brake Calliper
16	Front Wheel
17b	Front Wheel Quick Release Nut *
18	Front Forks
19	Front Mudguard

* Comprised of Number 7 & 8 as detailed on Page 7

Number	Component Description
21	Mainframe
22a	Right-Hand Pedal
23a	Right-Hand Crank Arm
24	Chain Set
25	Chain
26	Swinging Arm
28	Sockal Clip
29	Tensioner (i4) / Rear Derailleur (d9)
30	Rear Wheel
31a	Wheel Nut (i4) / Quick Release Nut (d9)
32	Sprocket (i4) / 9spd Cassette (d9)
33	Rear Rack
34	Rear Brake Calliper
35	Rear Self-locking Catch
36	Seat Clamp Quick Release Lever
37	Seat Post
38	Saddle Clamp Bolt
39	Saddle
40	Replaceable Rear Mech Hanger

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STANDING ON THE LEFT-HAND SIDE OF THE BIKE

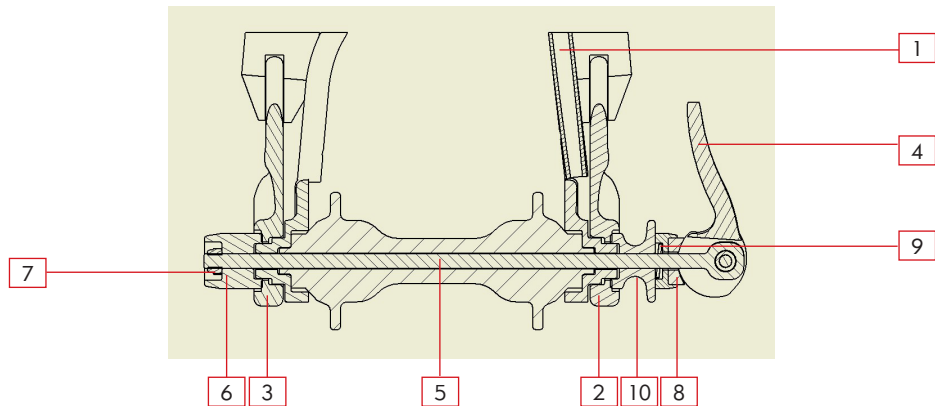


Number	Component Description
1b	Left-Hand Handlebar Grip
4b	Left-Hand Brake Lever
11	Secondary Safety Clip (Optional)
17a	Front Wheel Quick Release Lever
20	Dropout Catch
22b	Left-Hand Pedal
23b	Left-Hand Crank Arm
27	Swinging Arm Pivot
31b	Wheel Nut (i4) / Quick Release Lever (d9)





FRONT WHEEL QUICK RELEASE ASSEMBLY



Number	Component Description
1	Front Mudguard Assembly
2	Right-Hand Fork Dropout
3	Left-Hand Fork Dropout
4	Quick Release Lever (shown closed)
5	Quick Release Shaft
6	Quick Release Adjusting Nut
7	Quick Release Lock Nut
8	Quick Release Lever Cam
9	Quick Release Spring
10	Quick Release Bobbin

GLOSSARY OF TECHNICAL TERMS:

There are also a few technical terms for parts and tools used in this manual that are not shown in the glossary of parts above.

They are:

Dropout	The dropouts are the parts of the frame and front fork that the wheels slot into.
Socket Head Cap Screw	Also known as an Allen Bolt, this is a bolt with a hexagonal cut out in its head. An Allen Key is required to tighten /loosen. Used all over your Mezzo.
Torque	A twisting force, in this case relating to the tightness of a nut and bolt, screw or quick release.
Torque Wrench	A tool for setting and adjusting the tightness of nuts and bolts to a desired value.
Sockal Clip	Adjustable clip used for securing the front wheel assembly to the side of the bike when folded.



SAFETY:

Quick Release

The first Quick Release mechanism was designed and patented in 1930 by the Italian designer Tullio Campagnolo, and since then has become an industry standard fastening technique for the bicycle.

The Mezzo Folding Bike uses Quick Release mechanisms in two places during the folding and unfolding of your bike.

It is extremely important for your own safety that you understand and can operate the Quick Release mechanism correctly and safely.

Please refer to the folding and unfolding sequence section of this manual.

The Quick Release mechanism is essentially a simple over-centre cam device with two positions. Open and Closed.

Open Position: (Figure 1)

In the open position, the Quick Release mechanism freely rotates and nothing is clamped. The 'OPEN' mark is displayed on the Quick Release Lever.

Closed Position: (Figure 2)

To close the Quick Release mechanism, the Quick Release Lever must be rotated so the Quick Release Lever operates the cam and clamps the Quick Release mechanism it is restraining.

The 'CLOSED' mark is displayed on the Quick Release Lever.

Tightening Quick Release mechanisms:

No Torque settings are specified for Quick Release mechanisms. However you should adjust the Quick Release mechanism with the Quick Release Nut, so as to feel resistance just before half way through the travel range when in the process of tightening the Quick Release Lever by swinging the Quick Release Lever around from the 'Open' position to the 'Closed' position.

We recommend a closing force on the Quick Release Lever, applied tangentially to the Quick Release Lever, of approximately 130N, which if measured using a spring balance, a load of 13kg.

IMPORTANT SAFETY NOTE: Do not attempt to use the Quick Release Lever (see glossary 17a) as a 'wing nut' style fastener. (Figure 3)

!WARNING

Failure to properly operate and install the Quick Release Components, may cause the wheel and mudguard to become detached from the bicycle while you are riding resulting in a serious accident.

ALWAYS CHECK BEFORE RIDING. IF YOU HAVE ANY QUESTIONS, ASK YOUR DEALER. IMPROPER USE CAN RESULT IN SERIOUS BODILY INJURY.





AREAS OF ADJUSTMENT:

SADDLE HEIGHT: (Figure 1)

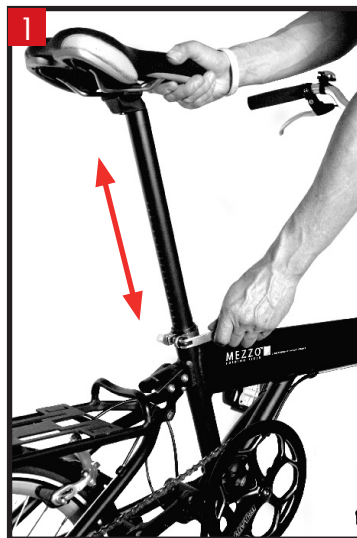
Tools Required: None

Tightening Torque: See Quick Release Tightening in the Safety Section

Adjustment of the saddle height is made by releasing the Quick Release Lever at the mainframe, and sliding the saddle up and down to the required height.

The correct method for determining your own personal saddle height can vary from person to person, but as a rule of thumb, measured from the pedal at the bottom of the crank stroke (6 'o'clock) to the middle of the top of the saddle, a distance equivalent to 90% of your own inside leg measurement should be a reasonable starting point from which to 'fine tune' to your own preference.

Once the height has been set to the desired level, close the Quick Release Lever. Make sure that after adjusting the seat height, you ensure the saddle is secure and aligned correctly to the centre line of the bike, as a misaligned saddle will be uncomfortable to ride on. Note that the height of the saddle can be recorded using the scale permanently marked on the Seat Post.



IMPORTANT SAFETY NOTICES:

1. If you are unsure of how to operate a Quick Release, refer to the relevant section on Quick Release operation in this manual.

2. Never have less than the minimum amount of Seat Post inserted into the Mainframe. (The minimum insert mark is marked on the Seat Post, and is approximately 100mm from the bottom of the Seat Post)

SADDLE FRONT AND BACK ADJUSTMENT:

Tools Required: 6mm Allen Key

Tightening Torque: M7 socket head cap screw: 18 Nm

The saddle can be adjusted to move it closer or further away from the handlebars. The saddle rail slots are to fit standard 7mm rails. To adjust this position, you need to loosen the M7 socket head cap screw with the 6mm Allen key (there is no need to completely disassemble the clamp) and slide the saddle forward or back to the desired position.

Check that the saddle is at the correct angle for riding comfortably, and re-tighten the M7 socket head cap screw to the specified torque setting using the 6mm Allen Key. Recheck the tightness of the M7 socket head cap screw with a torque wrench after approximately 80kms of riding.



IMPORTANT SAFETY NOTE: Please make sure that the seat post clamp sits on the parallel section of the seat rails. (Figure 2)





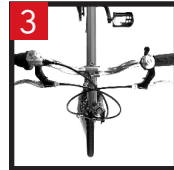
HANDLEBAR HEIGHT:

Tools Required: 5mm Allen Key

Tightening Torque:

M6 Fastener: 7.0 - 8.5Nm

The height of the handlebars can easily be adjusted. Undo the M6 Socket head cap screw with the 5mm Allen key (Figure 1 & 2) until the handlebar stem can easily be raised or lowered to the desired height. Make sure that the handlebars are straight and correctly aligned to the front wheel before tightening the clamp to the specified torque setting. (Figure 3)



IMPORTANT SAFETY NOTE: Never have less than the minimum amount of handlebar stem inserted into the Upper Hinge. (The minimum insert mark is marked on the handlebar stem, and is approximately 65mm from the bottom of the handlebar stem).

HANDLEBAR ROTATION (and effects on folding efficiency):

Tools Required: 5mm Allen Key

Tightening Torque: M6 Fastener: 12 - 14Nm

The handlebars can be rotated to provide more adjustment for the rider. It is worth noting however, that in the extreme ranges of adjustment the folding size will increase as the handlebars will not fold inward as closely, and thus will protrude further from the bike. To adjust the position of the handlebars undo the two M6 socket head cap screws with the 5mm Allen key. (Figure 4) The handlebars can now be rotated 'forward' and 'back' relative to the seated position.



IMPORTANT SAFETY NOTE: Never try and turn the handlebars with the clamp partially undone.

Turning the handlebars in this manner increases the risk of scoring the handlebars, which significantly reduces the fatigue life of the handlebar which could result in failure of the component and serious injury to the rider.

The handlebars have been designed with a 6 degree sweep, to further enable different hand positions to be obtained. Once you are happy with the position of the handlebar, tighten the 2 M5 socket head cap screws to the specified tightening torque.

IMPORTANT SAFETY NOTE: Please do NOT fit bar-ends to the existing handlebars. The reason for this is as follows:

- a) To conform with the EN14764 safety standard, the whole steering column assembly would have to be additionally fatigue tested for the specific case of bar-ends being installed. The previous Velotech DIN + test did not include bar ends.
- b) The bar ends interfere with the bike fold, making the folded width somewhat greater and potentially damaging the left side fork leg, which is safety critical



BRAKE LEVER POSITION (Figure 1a) (and effects on folding efficiency):

Tools Required: 5mm Allen Key

Tightening Torque: M6 Fastener: 6 - 8Nm

The brake lever position can be rotated on the handlebars. To adjust the position of a brake lever, undo the M6 socket head cap screw with the 5mm Allen key, until the brake lever can be freely moved. It is worth noting that in extreme ranges of adjustment the folding size will increase as the brake levers will not fold inward as closely, and cause them to protrude further from the bike.



IMPORTANT SAFETY NOTE: Do not partially undo the socket head cap screw and then try and force the brake lever to turn. Scoring the handlebars can reduce the fatigue life of the handlebar.

BRAKE LEVER 'REACH' (Figure 2a)

Tools Required: 3mm Allen Key

No Torque setting, adjustment only.

Adjustments can be made to the distance the lever is positioned from the handlebar, this is known as the 'reach' of the lever. Using the 2mm Allen key, simply screw in the M3 grub screw situated on the clamp body of the Brake lever. Turning clock-wise will reduce the distance from the lever to the handlebar, and turning anti-clockwise will increase the distance from the lever to the handlebar.



Notes:

From new, the lever will be positioned at maximum adjustment, i.e. farthest away from the handlebars. Changes made to the brake lever reach may require the cable to be adjusted via the barrel adjusters at either the brake lever or the brake calliper, to restore an appropriate clearance of the brake blocks from the rim. Refer to page 24 for adjustment instructions.

TYRE PRESSURES:

Make sure that the tyres are inflated to the correct and recommended inflation pressure. (See Side-wall of Tyre) With small 16" wheels, under-inflated tyres lead to drastically reduced efficiency for the rider, wasted energy, greater rate of wear and increase risk of sustaining punctures from impact with potholes. Keep Tyre pressures near to the upper range of the recommended settings.

RECOMMENDED SPARES FOR YOUR MEZZO:

When riding the Mezzo we recommend the rider carry the following spares, as a minimum requirement.

1 spare inner tubes: Size 16" (349) x 1 3/8" Pump

A Set (usually 3 levers) of tyre Levers

A selection of Allen Keys, most important sizes are 2.5, 4, 5 and 6mm

A 17mm A/F spanner to remove i4 rear wheel nuts.

A small flat bladed screwdriver to assist in disconnecting the i4 rear gear cable from the hub.

An 8mm socket tool.

!WARNING

These instructions are intended as a simple set-up guide for the rider. We strongly recommend the areas not covered by these instructions are only adjusted and serviced by your Mezzo dealer.



FOLDING AND UNFOLDING YOUR MEZZO:

The folding structures of the Mezzo incorporate clamping mechanisms and it is essential you fully understand their operation and function. Failure to operate these clamping mechanisms in the correct manner could result in an unsafe and dangerous bike to ride. Make sure that your Mezzo dealer fully familiarise you with the folding clamping mechanisms on your Mezzo.

SELF-LOCKING CATCHES:

The Self-Locking catches on the Mezzo folding bike are a new innovation in the Folding Bike market. They have been developed and tested to enable ease of use and provide the quickest folding and unfolding possible. The Catches are spring loaded to constantly act to close the joint and have been engineered to allow for adjustment over time to combat normal and expected wear and tear.

It is important that both front and rear Self-Locking catches are fully pressed closed and that the optional front secondary safety clip if fitted is engaged before you ride the bike.

BRAKES:

Using the braking system of the bike in an improper manner, could lead to loss of control or cause an accident, leading to severe injury. We recommend that you take time to gain experience of how to apply the correct brake lever pressure to stop the bike safely, together with reading and applying all relevant passages of the Highway Code to your riding. Please note that braking performance is reduced in the wet. A larger stopping distance is required in wet or icy conditions. It is very important to prevent all lubricants from coming into contact with the brake pads and wheel rims.

If lubricant does contact the brake pads, you should replace the contaminated pads, because the brakes may not work correctly causing an accident and serious injury could result.

As outlined in the pre-ride check section, check that both front and rear brakes are functioning satisfactorily before riding the bike. The Mezzo comes set up with the brakes working as follows. As you sit on the Bike, the Right Hand brake lever operates the front brake, and the Left Hand brake lever operates the rear brake.

Please note, that parts are not guaranteed against natural wear or deterioration resulting from normal use.

SEAT POST:

The folding nature of the Mezzo means that for a single folding and unfolding cycle, the seat post will be pushed down and then pulled up. Check your seat post regularly for wear and scratches. Scratches running across the post (not up and down) can cause areas of stress concentration, which could lead to seat post failure. Please refer to the maintenance section for more information.

FASTENERS:

Using a torque wrench periodically, or whenever conducting routine maintenance, check that the tightness of all important screws are to the recommended settings. If you are unsure, get your Mezzo dealer to inspect and check all important fasteners.



FINGER TRAPS:

Whilst folding or unfolding the bicycle, avoid trapping fingers in between components that are closing together.

HOW TO UNFOLD YOUR MEZZO FROM STORAGE FOLD STANDING ON THE RIGHT HAND SIDE OF THE BIKE:

Fold up the Handlebars until the Self-Locking Catch closes. (Figure 1)



Press firmly to make sure the Front Self-Locking Catch is securely closed. (Figure 2)



Open the Seat Clamp Quick Release Lever and raise the Saddle to the desired mark on the Seat Post for riding. Close the Seat Clamp Quick Release Lever. (Figure 3)



Holding the Lower Stem with your left hand, and the Front Wheel Quick Release Lever with your right, pull the wheel towards you, releasing it from the spring clip. (Figure 4)



Holding the Lower Stem with your left hand, and keeping the lock-stop against its stop, lift the lower stem upwards and carefully rotate the Front Wheel/Mudguard into the Front Forks. Do this slowly so that you see the Quick Release Assembly move out and back in, thereby locating and locking the wheel correctly into the dropouts. (Figure 5)



WARNING: If you do not see the Quick Release Assembly move back in to the locked position, the front wheel may not be correctly located in the fork dropouts.



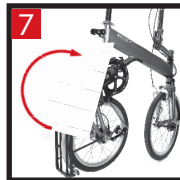


HOW TO UNFOLD YOUR MEZZO FROM STORAGE FOLD STANDING ON THE RIGHT HAND SIDE OF THE BIKE:

Make sure the Front Wheel and Quick Release Assembly are fully located into the Fork Dropouts before closing the Front Wheel Quick Release Lever. (Figure 6)



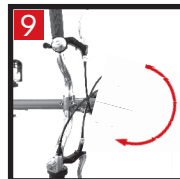
Holding the Handlebars and the Saddle, lift the bike upwards by the Saddle and allow the Swinging Arm to unfold until the Rear Self-Locking Catch clicks shut. (Figure 7)



Press the Rear Self-Locking Catch to make sure it is securely closed. (Figure 8)



Rotate the Handlebars clockwise to the riding position. (Figure 9)



To unfold the pedal, rotate the pedal body outwards, until the mechanism snaps closed. (Figure 10)



IMPORTANT SAFETY NOTICE: Make sure the Front Wheel Quick Release Lever and the Front and Rear Self-Locking Catches are pressed fully closed before riding.
IMPORTANT SAFETY NOTICE: Make sure the rider completes the quick 'pre-ride safety check' before every trip.





HOW TO STORAGE FOLD YOUR MEZZO STANDING ON THE RIGHT HAND SIDE OF THE BIKE:

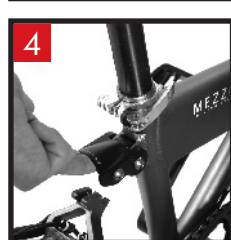
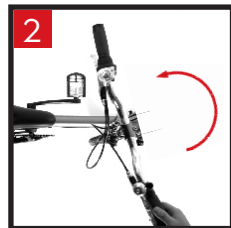
For d9 'derailleur' bikes shift the chain into the middle of the sprockets before starting the folding procedure.

Rotate the pedals so that the right-hand Crank Arm points toward the centre of the rear wheel. (Figure 1)

Rotate the handlebars anti-clockwise as far as they will go and hold against the end stop. (Figure 2)

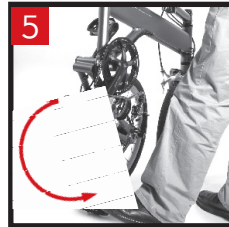
Continue to hold against the end stop and....
(Figure 3)

Lift the rear Self-Locking Catch and release the back of the bike (Swinging Arm) from the Main Frame by continuing to lifting the Self-Locking Catch upwards. (Figure 4)





Continue to lift the bike upwards and fold the Swinging Arm under the mainframe. (Figure 5)



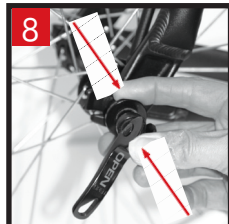
Place the bike back down on ground. The bike should be sitting on the Rear Rack. (Figure 6)



Supporting the bike, undo the Front Wheel Quick Release Lever. (Figure 7)



Operate the Quick Release Assembly, like a syringe, to dis-engage it from the recesses in the Dropouts. This will release the Front Wheel and Mudguard from the Front Forks. Let it swing down until it touches the ground. (Figure 8)



Holding the Handlebars against the End Stop, lean the bike away from you and swing the Front Wheel towards the middle of the bike, holding on to the Front Wheel Quick Release Lever. (Figure 9)



On the d9 model if the spokes hit the Rear Derrailleur rotate the wheel slightly to avoid contact.

When the mudguard strut lines up with the Sockal clip push it in to lock it in place. It will click in and hold. (Figure 10)





Open the Seat Clamp Quick Release Lever and slide the Seat Post down in to the frame as far as it will go. Do not lift the bike in the folded position unless the Seat Post is fully lowered and clamped. (Figure 11)



Pushing the Secondary Safety Catch to the side, open the Front Self-Locking Catch. (Figure 12)



Fold down the Handlebars to the side of the bike. (Figure 13)



Stow the pedals by pushing inward towards the bike, on the outside edge of the pedal body, then folding downwards. (Figure 14)



IMPORTANT SAFETY NOTICE: Make sure you close the Seat Post Quick Release Lever after the Saddle has been lowered if you intend to lift and carry the bike by the saddle nose.

TIPS FOR CARRYING YOUR MEZZO: We recommend for ease of use.

Unfolded: The easiest way to carry the Mezzo is to hold the bike with one hand placed under the Mainframe and the other holding the handlebars, either at the handlebar grip, or on the steering column.

Folded: There are two preferred ways of carrying the Mezzo when folded.

1. When lowering the saddle, twist the nose of the saddle slightly away from your body, and lift using the nose of the saddle. This should let the bike hang naturally away from your body.

2. Place your hand underneath the mainframe, in line with the nose of the saddle.
For d9 'derailleur' bikes shift the chain into the middle of the sprockets before starting the folding procedure.





HOW TO PARKING FOLD YOUR MEZZO STANDING ON THE RIGHT HAND SIDE OF THE BIKE:

Rotate the pedals so that the right-hand Crank Arm points toward the centre of the rear wheel. (Figure 1)



Lift the rear Self-Locking Catch and release the back of the bike (Swinging Arm) from the Main Frame by continuing to lifting the Self-Locking Catch upwards. (Figure 2)



Still holding the Handlebars against the End Stop, continue to lift the bike upwards and fold the Swinging Arm under the mainframe. (Figure 3)



Place the bike back down on the ground. The bike should be sitting on the Rear Rack. (Figure 4)



The bike should be sitting on the Rear Rack. (Figure 5)



IMPORTANT SAFETY NOTICE: Make sure the Front and Rear Self-Locking Catches are pressed fully closed before riding.





HOW TO UNFOLD YOUR MEZZO FROM PARKING FOLD STANDING ON THE RIGHT HAND SIDE OF THE BIKE:

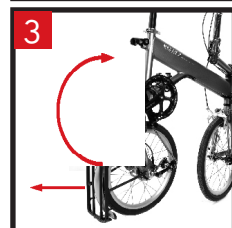
The bike should be sitting on the Rear Rack.
(Figure 1)



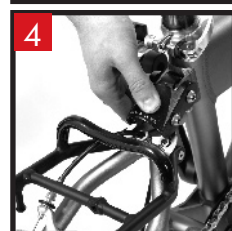
Holding the Handlebars and the Saddle, lift the bike upwards by the Saddle. (Figure 2)



Continue to lift the bike upwards and allow the Swinging Arm to unfold until the Rear Self-Locking Catch clicks shut. (Figure 3)



Press the Rear Self-Locking Catch to make sure it is securely closed.
(Figure 4)



The bike is now ready to complete the quick 'pre-ride safety check'.
(Figure 5)



IMPORTANT SAFETY NOTICE: Make sure the rider completes the quick 'pre-ride safety check' before every trip.





MEZZO PRE-RIDE CHECK:

All Mezzo bikes undergo a Pre-Delivery Inspection check by your Dealer before you collect your bike, however it is important before every ride, to run through a 'pre-ride check' to ensure the bike is completely safe to ride. If you are unsure about any area in the list below and do not feel confident to make necessary adjustments, do NOT ride the bike, and contact your Mezzo Dealer.

CHECK-LIST:

Frame / Fork / Swinging Arm: Check the condition and integrity.

Handlebar / Upper Stem / Lower Stem position: Check the Stem is not above the minimum insert mark. Check for looseness by trying to move the handlebars from side to side / forward and back. Handlebar grips are secure and not rotating. Handlebar ends are plugged.

Front Hinge Self-locking Catch: Check that the Catch is pressed fully closed and the Secondary Safety Clip is engaged into its recess. Check for excessive looseness in the Hinge Catch mechanism by pulling up and down on the handlebar grips.

Rear Self-locking Catch: Check that the Catch is pressed fully closed. Check for excessive looseness in the Catch mechanism by lifting the bike up and down by the saddle.

Front Wheel Quick Release Assembly: Check that the Front wheel is FULLY located into the recesses in the fork dropouts. Check that the Quick Release Lever is tight. If necessary, adjust the Adjusting Nut and Lock Nut to increase the tightness and security of the Front Wheel.

It is of vital importance that the Front Wheel is securely held in the Fork Dropouts.

Brake Levers and Shifter: Check for looseness by trying to rotate the levers on the handlebars.

Headset: With the front brake applied, check for play in the headset bearing by rocking back and forth on the handlebars.

Wheels (General): No play in either front or rear hubs, No broken or loose spokes, Check Quick Release mechanisms are correctly closed and are tight.

Tyres: Check inflated pressure is correct (Very Important for efficient riding) Check for correctly seated tyre walls. Clean any dirt obscuring the reflective sidewall strip. Check for deep cuts in the tread caused by glass or other debris which could lead to punctures.

Brakes: Check both brake levers are operating the respective brakes correctly, and the bike can be stopped by either or both brakes being applied.

Chain and Chainset: Running freely and gears operate satisfactorily and sufficient lubrication of moving parts has been undertaken.

Pedals: Check that the Pedals have been unfolded correctly, and are not unscrewing from the chainset.

Saddle: Check the Saddle height is set to the desired height but not above the minimum insert mark. Check for looseness in the Saddle and Seat Post Quick Release Clamp by trying to twist the saddle from side to side.



Reflectors and Lights: Clean reflector lenses. Check lights operate correctly (if fitted).

Brake and Gear Cables: Ensure that cables are routed freely and are not caught such that they impair function of the folding locks, brakes, gears, steering or transmission

RIDING YOUR MEZZO:

The Mezzo folding bike has been designed and developed to ride as safely and securely as any other standard bicycle. Smaller 16" wheels will mean that handling characteristics will feel slightly different from conventional 26" or 700c wheel bikes, but not in any way to the detriment of handling or safety on the road.

For riding advice and safety on the road, we recommend that the rider reads, understands and complies with all the relevant sections of the Highway Code. For rider training, we recommend the rider contacts a nationally recognised organisation, such as the CTC in the UK.

In addition to this manual, we also recommend the rider thoroughly reads the documentation from the component manufacturers supplied with this bike that relates to riding and the safe operation of the bike. For example: Shimano Nexus Inter-4 Hub gear operation, adjustment and service instructions.

The rider should always complete the pre-ride check, before every ride. In addition to this, for long term safe riding, the rider also conducts periodic checks on other components in accordance with the Routine Maintenance section of this manual.

HOW TO REMOVE FRONT AND REAR WHEELS IN THE EVENT OF PUNCTURES:

FRONT WHEEL REMOVAL: i4 and d9 models:

Tools Required: 8mm socket tool.

Tightening Torque: M5 Fasteners: 5.0 Nm

The design of the Mezzo folding bike, means that the front wheel is retained inside the Front Mudguard. In order to remove the front wheel from the bike, the wheel has also to be removed from the front Mudguard. Please refer to the photos for each step and the diagram on page 16.

The front wheel is most easily removed when the bike is in the Parking Fold position. Please see Parking Fold section starting on page 18 for more information. (Figure 1)



Undo the brake Quick Release Lever on the side of the front brake calliper, to allow the removal of the wheel between the brake pads. (Figure 2)





Whilst the Quick Release Lever is tight, remove the M5 Lock Nut (7) from within the Adjusting Nut (6), using an 8mm across flats socket tool. (Figure 3)



Next Undo the Front Wheel Quick Release Lever (5) from the 'CLOSED' position to the 'OPEN' position. (Figure 4)



Unscrew the adjusting nut counter-clockwise and remove from shaft. Pull the shaft out of the front wheel. (Figure 5)



Pulling the mudguard stays apart; the front wheel can now be sprung out of the mudguard. The wheel can now be accessed in the normal way for maintenance or repair. (Figure 6)



To re-install the front wheel, insert the wheel into the mudguard by sliding the ends of the axle into the ramps on the front of the Mudguard ends so as to push the Mudguard stays apart, making sure the direction of rotation of the tyre is correctly orientated. Spring the mudguard apart to allow the wheel hub to sit into the bobbins. (Figure 7)



Swing the front wheel into the Fork Dropouts (3) (4) as shown in the unfolding procedure. (Figure 8)



Next, refit the Quick Release Lever and Shaft (4) (5) Cam (8) coil spring (9) and Bobbin (10) as shown. Make sure the Quick Release Lever (4) is on the right-hand side of the bike, so the bike can be correctly folded. (Figure 9)





Next, screw the Quick Release Adjusting Nut (6) clock-wise onto the Quick Release Shaft (5) until the Quick Release Lever (4) can be closed with enough force to clamp the wheel securely. To adjust this correctly, please refer to the 'Tightening Quick Release mechanisms' section on page 8 of this User Manual. (Figure 10)



Once the Quick Release has been correctly adjusted, close the Quick Release Lever (4) to the 'CLOSED' position. (Figure 11)



Screw on the M5 Lock Nut (7) clock-wise to lock the Adjusting Nut onto the Quick Release shaft. Tighten to 5 Nm torque. (Figure 12)



Finally Close the cable release lever on the front brake caliper and make a final check that the front brake operates correctly. (Figure 13)





REAR WHEEL REMOVAL: i4:

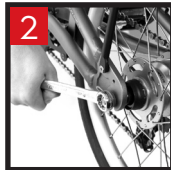
Tools required:

17mm AF spanner. Small Flat Bladed Screw Driver. Shimano technical service document SI-6E60A
Tightening Torque: 30.0 - 45.0 Nm

The rear wheel of the Mezzo i4 is the Nexus Inter-4 hub gear. Before the wheel can be removed, you must disconnect the shifting cable from the hub. Refer to the Shimano technical service document SI-6E60A for the correct procedure necessary.

With the shifting cable safely removed from the rear hub, first undo the Quick Release Lever on the rear brake calliper (Figure 1) to allow the wheel to pass between the brake pads.

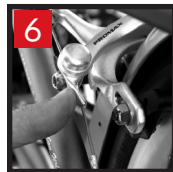
Next undo the 17mm nuts on both sides of the wheel (Figure 2 & 3) with the 17mm A/F spanner and noting which colour anti-rotation washer was fitted to which side, remove the nuts and anti-rotation washers. Now guide the wheel out of the dropouts, and pulling the chain tensioner (Figure 4) backwards, guide the wheel down and clear of the bike in the normal manner. The Wheel should now be free for service and repair.



To replace the rear wheel, first pull the tensioner backward as you guide the wheel up into the dropouts, making sure that the chain is located on the sprockets, and the shifting cable receptacle is facing forward in the correct manner as described in the Shimano technical service document. With the wheel now securely in the dropouts, re-fit the anti-rotation washers (Figure 5) respectively, and the wheel nuts. Re-tighten the nuts using the 17mm A/F spanner to the specified tightening torque.



With the wheels now securely fitted into the frame, the shift cable can now be re-fitted to the hub gear. Refer to the Shimano technical service document for correct instructions.



The last step is to close the Quick Release Lever on the rear brake calliper (Figure 6) and make a final check of the adjustment of the rear brake calliper.

If you are at all unsure about removing the Inter-4 rear wheel, refer to the Shimano Technical Service Instruction sheet: SI-4R35A

CHAIN TENSION: i4:

The chain tension on the i4 is controlled by the double wheeled tensioner. This device automatically keeps the chain under tension during riding and at every point during the folding of the bike. It should not be necessary for the customer to adjust the tension of the chain in any way. Consult your Mezzo dealer if any problem with the tension of the chain should arise.





REAR WHEEL REMOVAL: d9:

No tools required.

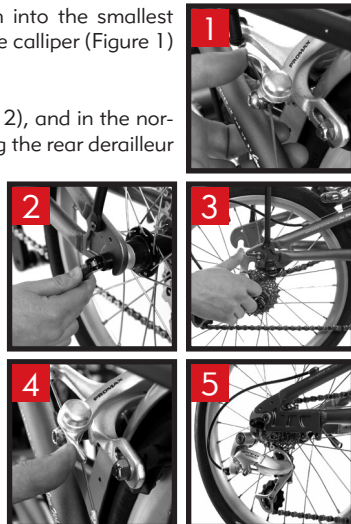
To remove the rear wheel of the Mezzo d9, shift the chain into the smallest sprocket. Next undo the Quick Release Lever on the rear brake calliper (Figure 1) to allow the wheel to pass between the brake pads.

Next open the Quick Release Lever on the rear wheel (Figure 2), and in the normal manner, guide the wheel out of the dropouts, whilst pulling the rear derailleur back (Figure 3) to allow the rear wheel to come cleanly out of the frame. The Wheel should now be free for service and repair.

REAR WHEEL REFITTING: d9:

No tools required.

Refitting the wheel is essentially the reverse of the removal. Close the Quick Release Lever 31b according to the 'Closed position' section on page 8 of this User Manual". Also make sure you close the Quick Release Lever on the rear brake calliper (Figure 4) and perform a check of the adjustment of the rear brake before riding. See section below on brake adjustment.



CHAIN TENSION: d9:

The chain tension on the d9 Mezzo is controlled by the standard rear derailleur. (Figure 5) It should not be necessary for the customer to adjust the tension of the chain in any way. Consult your Mezzo dealer if any problem with the tension of the chain should arise.

ROUTINE MAINTENANCE:

There is no given rule for service intervals but usually the bike should be checked every 2000 - 4000 km under normal conditions. This service interval may vary in case of rain, dust, hard use or other variables that may require the bicycle to be serviced more frequently. Repairs should be carried out immediately a problem becomes apparent. This increases safety and reduces repair costs by avoiding secondary damage. Handlebars should be replaced periodically, or following a crash that inflicts any visible damage to the bars, controls or grips. The recommended interval between bar replacements is 3 years or 40,000 km - whichever is sooner. Only replace the bars with a standard Mezzo bar, or you will adversely affect folding performance.

CLEANING YOUR MEZZO:

In order to make routine maintenance easier and quicker, we recommend cleaning your Mezzo regularly. As well as making the use of the bike more enjoyable, the process of cleaning a bike, is in itself a good way of giving the bike a good overall check. Many elements of the 'Pre-Ride Check' can be covered whilst in the process of cleaning the bike. When cleaning the bike NEVER use high pressure hoses or jet washes. These can lead to forced ingress of dirt, and other contaminants into moving parts as well as into the frame itself. We recommend cleaning the bike using a bristly brush, with warm soapy water, and remove all mud and dirt, especially in areas near moving parts, such as inside the mudguards. Then wash the soapy water away with a sponge and wipe the bike clean with an old towel.



SHIMANO PARTS:

For up to date Shimano technical information, please refer to the relevant model service guide on-line, or contact your local Mezzo dealer or Shimano Service centre.

DRIVE TRAIN (chain, sprocket(s) chain ring, derailleur/tensioner):

We recommend that you take time to first clean then lubricate the drive train on a regular basis, to reduce the potential for accelerated wear brought about by ingress of salt, mud and water etc.

Refer to the Lubrication table for the necessary maintenance information.

BRAKE ADJUSTMENT:

Tools Required: 5mm Allen Key

Tightening Torque: Brake Calliper Mounting Bolt:

8 - 10Nm: Brake Pad Bolts: 5 - 7Nm: Cable Bolt: 6 - 8Nm

Both front and rear brakes on all Mezzo folding bikes are the dual pivot calliper types. The set up and initial adjustment should be completed at the Factory and checked again by your Mezzo dealer before you purchase your bike.

Over time and after extensive use especially in periods of prolonged wet weather, you will need to check your brake pads for wear, and be prepared to adjust the brakes as the pads start to wear to restore efficient braking performance.

Figure 1:
Barrel adjuster on the
brake callipers.

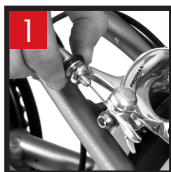
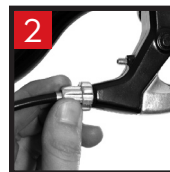


Figure 2:
Barrel adjuster on the
brake lever.



Adjustment of the brake pad position is achieved in two ways.

Screw out either the brake calliper (Figure 1) or the brake lever (Figure 2) barrel adjuster until the brake pads are as close to the wheel rim surfaces as possible, without inhibiting the free rotation of the wheel.

Dual Pivot Callipers are not self-centering, and so it is important to check that both brake pads contact the rim simultaneously. If one pad contacts the rim before the other, you will need to centralise the calliper. This is done by slackening the mounting bolt with the 5mm Allen key just enough to allow the calliper to be rotated into a central position. Check that the brake pads are now contacting the wheel simultaneously, and whilst holding the pads against the wheel rim, tighten the brake calliper mounting bolt to the specified torque setting.

Note 1: When adjusting the rear brake, make sure the bike is completely unfolded.

Note 2: Some run-out (meaning it's slightly out of true) of the wheel rim is to be expected, but only in the region of 1 - 2mm maximum.

Maximum braking efficiency is gained by a true wheel, and a wheel which is buckled or has excessive run-out, must be re-trued by your Mezzo dealer.



TYRES:

The tyres on the Mezzo folding bike have been specially manufactured to offer a tread that performs well in a variety of weather conditions, together with the latest development in puncture resistant technology, the 'Kevlar Inside' strip help protect against punctures. Replace worn tyres, or tyres which have bad cuts from glass or other debris.

WHEELS:

It is normal for any spoke wheel, to settle in after approximately one months of normal riding. It is especially important with the 16" wheel to get the wheel spokes re-tensioned after this first months use. After this, the spokes should not need any periodic adjustment, except to make regular inspections for loose or broken spokes.

The braking surface of the wheel rims will wear with normal use. Regularly inspect the braking surface of both wheel rims, and consult your Mezzo dealer for replacement wheel rims after approximately 1 year or 5000 miles of normal use, whichever is sooner.

STEERING:

Inspect the head bearings, and check for any play as recommended in the pre-ride check. We recommend servicing the headset every 6 months, usually before and after the winter months.

SEAT POST:

It is important that you maintain and inspect the Seat Post.

Check the Seat Post for sharp edges where the Seat Post enters the mainframe. Also inspect for dents and other deep scratches and gouges, ideally before each ride. Replace any Seat Post that has dents and other deep scratches and gouges immediately, and destroy the damaged Seat Post for safety reasons.

Sharp edges, dents and deep scratches induce stress concentration areas which could result in Seat Post failure.

SOCKAL CLIP:

The Sockal Clip is designed to be adjustable. On the top and the bottom of the Sockal Clip you will find a grub screw. Using a 3mm Allen key screw both grub screws in (Clockwise) half a turn each to increase the force required to push and pull the Mudguard stay into and out of the Sockal. Conversely screw both grub screws out (Anti-Clockwise) half a turn each to reduce the force required to push and pull the Mudguard stay into and out of the Sockal. (See Step 10: To Fold Your Mezzo)

The rubber insert in the Sockal is replaceable when it wears out. Contact your Mezzo dealer for further information.

!WARNING

As with all mechanical components the bicycle is subjected to wear and high stresses. Different materials and components may react in different ways. If the design life of a component has been exceeded it may suddenly fail, possibly causing injuries to the rider. Any form of crack, scratches or change of colouring in highly stressed areas indicate that the end of the components life has been reached and it should be replaced.



LUBRICATING YOUR MEZZO:

The following regime of lubrication should be undertaken. Always wipe away any excess lubrication. Note: We Recommend 3-in-1 with PTFE aerosol lubricant. For Grease, any good quality lithium based grease.

* Refer to component manufacturer's service instructions

Component	Freq. of Lubrication	Areas to Lubricate	Type of Lubrication	Fig. No
Brake Levers:	Once a month	Lever Pivot Cable Nipple Barrel	Waterproof Grease	1
Gear Shifters:	Once a month		3-in-1 with PTFE	*
Front Self-locking Catch:	Once a month	Catch Pivots, Hinge Pivots	3-in-1 with PTFE	2
		Catch Bar	Waterproof Grease	
Rear Self-locking Catch:	Once a month	Catch Pivots, Catch Bar	3-in-1 with PTFE	3
		Catch Bar	Waterproof Grease	
Fork Dropout Catch:	Once a month	Catch Pivot	3-in-1 with PTFE	4
Front Mudguard Pivot:	Once a month	Both sides of Pivot	3-in-1 with PTFE	5
Headset:	Every six months	(Strip and re-assemble)	Waterproof Grease	
Front/Rear Brakes:	Once a month	Calliper Pivots	3-in-1 with PTFE	6
Chain:	Every ride	Chain Links	3-in-1 with PTFE	7
Rear Derailleur:	Every ride	Mechanism and Wheels	3-in-1 with PTFE	8
Inter-4 Tensioner:	Every ride	Mechanism and Wheels	3-in-1 with PTFE	9
Front Wheel Quick Release:	Once a month	Cam & Cam Pivot Quick Release Axle	Waterproof Grease	10
Seat Post Quick Release:	Once a month	Cam Surface & Cam Pivot	3-in-1 with PTFE	11
D9 Rear Wheel Quick Release:	Once a month	Cam & Cam Pivot Quick Release Axle	Waterproof Grease	*



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LUBRICATING YOUR MEZZO:

The areas detailed below are designed to operate without lubrication. If these areas are lubricated the performance of the part in question will be adversely affected and could cause undesired operation which may affect the safety of your Mezzo Folding Bike. If you have any questions on the areas you should not lubricate please ask your dealer.

DO NOT LUBRICATE THE FOLLOWING AREAS:

Component	Reason for no Lubrication	Fig. No
Front Mudguard Dropout Faces	Retain Clamping Friction of Quick Release	1
Front Fork Inside Dropout Faces	Retain Clamping Friction of Quick Release	2
Rear Swinging Arm Pivot Bearings	Sealed Bearings	
Seat Post	Retain Clamping Friction	3
Upper Handlebar Stem	Retain Clamping Friction	4
Front Hub	Sealed Unit	
Shimano Inter-4 Hub	Sealed Unit: Service at Shimano Service Centre	
Rear Hub	Sealed Unit	



!WARNING

It is very important to prevent all lubricants from coming into contact with the brake pads and wheel rims. If lubricant does contact the brake pads, you should replace the contaminated pads, because the brakes may not work correctly causing an accident and serious injury could result.



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